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(74) Agents: **ARUGA, Mitsuyuki** et al.; Kyodo Building, 3-6,  
Nihonbashiningyocho 1-chome, Chuo-ku, Tokyo 103-0013  
(JP).

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(71) Applicant (*for all designated States except US*): **POLA  
CHEMICAL INDUSTRIES, INC.** [JP/JP]; 6-48, Yayoi-  
cho, Shizuoka-shi, Shizuoka 420-0914 (JP).

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(71) Applicants and

(72) Inventors: **TAKAI, Yoshihiro** [JP/JP]; 2-14, Nijino-oka  
3-chome, Izumi-ku, Sendai-shi, Miyagi 981-8007 (JP).  
**IDO, Tatsuo** [JP/JP]; 9-14, Miyagidai 3-chome, Aoba-ku,  
Sendai-shi, Miyagi 989-3214 (JP).

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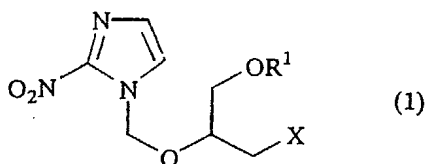
(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **TSUJITANI, Michi-  
hiko** [JP/JP]; 12-1, Futaba 2-chome, Yokosuka-shi, Kana-  
gawa 239-0814 (JP).

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(54) Title: NITROIMIDAZOLE DERIVATIVE AND DIAGNOSTIC IMAGING AGENT CONTAINING THE SAME



(57) Abstract: A nitroimidazole derivative represented by formula (1): [wherein R<sup>1</sup> represents a hydrogen atom or a C1-C4 alkanoyl group; and X represents a fluorine atom or an isotope thereof], and a diagnostic imaging agent containing the derivative as an active ingredient. The derivative enables imaging of the ischemic sites of a circulatory organ or imaging of cancer cells, and thus the derivative can provide information about the position and the amount of the ischemic sites or the cancer cells. Therefore, the derivative contributes to selection of appropriate treatment of ischemia or cancer.

# INTERNATIONAL SEARCH REPORT

International Application No

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## A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data, BEILSTEIN Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	WADA, HIROAKI ET AL: "Synthesis of 1-'2-'18F!fluoro-1-(hydroxymethyl)-ethoxy! methyl-2- nitroimidazole ('18F!FENI), a potential agent for imaging hypoxic tissues by PET" J. LABELLED COMPD. RADIOPHARM. (2000), 43(8), 785-793 July 2000 (2000-07), XP002167863 abstract; figure 1; examples 2,18F2 ----- -/--	1-11



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>ALAUDDIN M M ET AL: "Evaluation of 9-(3-F-fluoro-1-hydroxy-2-propoxy)methylguanine ('F!-FHPG) in vitro and in vivo as a probe for PET imaging of gene incorporation and expression in tumors - Initial evaluation with PET with the radiolabeled glucose analogue 2-(F-18)fluoro-2-deoxy-d-glucose" NUCLEAR MEDICINE AND BIOLOGY,US,ELSEVIER SCIENCE PUBLISHERS, NEW YORK, NY, vol. 26, no. 4, May 1999 (1999-05), pages 371-376, XP004167069 ISSN: 0969-8051 page 372, paragraphs 1,2 abstract tables 1,2</p>	1-11
Y	<p>US 5 728 843 A (CHERIF ABDALLAH ET AL) 17 March 1998 (1998-03-17) abstract; examples 1A,1B figures 1,2</p>	1-11
A	<p>J E BISKUPIK ET AL: "Synthesis of an (iodovinyl)misonidazole Derivative for hypoxia imaging" JOURNAL OF MEDICINAL CHEMISTRY,US,AMERICAN CHEMICAL SOCIETY. WASHINGTON, vol. 34, 1991, pages 2165-2168, XP002091797 ISSN: 0022-2623 abstract; table 1</p>	1-11
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International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>ALAUDDIN M M ET AL: "Synthesis and Preliminary Evaluation of 9-(4-<sup>18</sup>F-Fluoro-3-Hydroxy methylbutyl)Guanine (<sup>18</sup>F-FHBG): A New Potential Imaging Agent for Viral Infection and Gene Therapy Using PET - Synthesis of 9-<sup>18</sup>-(1-F-fluoro-3-hydroxy-2-propoxy)-methyl guanine"</p> <p>NUCLEAR MEDICINE AND BIOLOGY,US,ELSEVIER SCIENCE PUBLISHERS, NEW YORK, NY, vol. 25, no. 3, 1 April 1998 (1998-04-01), pages 175-180, XP004113272 ISSN: 0969-8051 page 177, column 2 abstract</p>	1-11
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Information on patent family members

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